

CLAIMS

What is claimed is:

1. A method for handing-off a mobile unit from a current base station to a candidate base station in a CDMA communication system comprising a plurality of base stations, the method comprising the steps of:

receiving by a mobile unit transmissions from a plurality of candidate base stations, each transmission containing a global pilot code;

acquiring a global pilot code from one of the candidate base stations using global pilot code seed stored in a memory of the mobile unit;

establishing a communication link to the candidate base station from which the mobile unit acquires a global pilot code with a minimum transmit power;

comparing the transmit power to the candidate base station with the transmit power to the current base station; and

completing a hand-off from the current base station to the candidate base station if the transmit power to the candidate base station is less than the transmit power to the current base station.

2. The method of claim 1 wherein the step of acquiring a global pilot code from the candidate base station comprises the steps of:

selecting a global pilot code seed from a plurality of global pilot code seed stored in a memory of the mobile unit; and

searching for a global pilot code using the selected global pilot code seed to a maximum expected phase shift between the current base station and the candidate base station.

3. The method of claim 2 further comprising synchronizing the mobile unit to the candidate base station.

4. The method of claim 3 wherein the step of synchronizing the mobile unit to the candidate base station comprises the steps of:

selecting a global pilot code seed from a plurality of global pilot code seed stored in a memory of the mobile unit;

acquiring a short sync code from the candidate base station using the selected global pilot code seed;

acquiring a fast broadcast channel based on the phase information obtained from the received short sync code; and

acquiring a global pilot code using phase information obtained from the fast broadcast channel.

5. A mobile unit for obtaining a hand-off from a current base station to a candidate base station in a CDMA communication system, the mobile unit comprising:

means for receiving transmissions from a plurality of candidate base stations, each transmission containing a global pilot code;

means for acquiring a global pilot code from one of the candidate base stations using global pilot code seed stored in a memory of the mobile unit;

means for establishing a communication link to the candidate base station from which the mobile unit acquires a global pilot code with a minimum transmit power;

means for comparing the transmit power to the candidate base station with the transmit power to the current base station; and

means for completing a hand-off from the current base station to the candidate base station if the transmit power to the candidate base station is less than the transmit power to the current base station.

6. The mobile unit of claim 5 wherein the means for acquiring a global pilot code from the candidate base station comprises:

means for selecting a global pilot code seed from a plurality of global pilot code seed stored in a memory of the mobile unit; and

means for searching for a global pilot code using the selected global pilot code seed to a maximum expected phase shift between the current base station and the candidate base station.

7. The mobile unit of claim 6 further comprises means for synchronizing the mobile unit to the candidate base station.

8. The mobile unit of claim 7 wherein the means for synchronizing the mobile unit to the candidate base station comprises:

means for selecting a global pilot code seed from a plurality of global pilot code seed stored in a memory of the mobile unit;

means for acquiring a short sync code from the candidate base station using the selected global pilot code seed;

means for acquiring a fast broadcast channel based on the phase information obtained from the received short sync code; and

means for acquiring a global pilot code using phase information obtained from the fast broadcast channel.